CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 00-085
NPDES PERMIT NO. CA0038784

WASTE DISCHARGE REQUIREMENTS FOR:

COUNTY OF SANTA CLARA ROADS & AIRPORTS DEPARTMENT
101 SKYPORT DRIVE
SAN JOSE, CA 95110-1302

FOR THE FOLLOWING FACILITY:

PUMP STATION AT OREGON EXPRESSWAY AND ALMA STREET
PALO ALTO, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter the Board) finds that:

1. **Permit Application:** The County of Santa Clara Roads and Airports Department (hereinafter the discharger) has applied for issuance of waste discharge requirements and a permit to discharge under the National Pollutant Discharge Elimination System (NPDES). Prior to coverage under this NPDES permit, discharges from this facility were covered under Order 99-051, the general NPDES permit for discharge of groundwater treated for solvent removal.

2. **Facility Description:** The discharger operates a pump station where Oregon Expressway passes under Alma Street in the City of Palo Alto, Santa Clara County. The pump station continuously collects and discharges groundwater from roadway underdrains, thereby preventing flooding of the Oregon Expressway Underpass (OEU). The pump station also collects storm sewer runoff from the vicinity. The combined groundwater and storm sewer runoff is currently discharged to the sanitary sewer, with overflow (i.e., flow greater than 450 gallons per minute [gpm]) transferred to a storm sewer discharging to Matadero Creek.

   The current construction of the OEU pump station, the groundwater underdrains, and the surrounding storm drainage system prevents the discharger from controlling or limiting groundwater and surface water flow into the pump station.

3. **Wastewater:** Groundwater flows into the OEU pump station at a rate of about 375 gpm. This groundwater contains volatile organic compounds (VOCs) originating from upgradient, third-party sites where releases of these substances have occurred. Total

VOC concentrations currently average approximately 75 micrograms per liter (ug/l) for the OEU wastewater. The majority of VOCs in OEU groundwater are represented by two constituents: trichloroethene and tetrachloroethene. As previously mentioned, OEU wastewater also contains intermittent surface water flows from the vicinity of OEU.

4. **Wastewater Treatment Study:** As presented in the NPDES permit application for this facility, the discharger cannot currently treat the OEU wastewater to remove VOCs, which are present at concentrations above typical effluent limits for this type of discharge. Pilot tests are underway to determine the most appropriate treatment method for this wastewater.

   The discharger has proposed to install a VOC treatment system for OEU wastewater. Prior to treatment system operation, the best available technology for managing OEU wastewater will be applied: the discharger is required to maximize discharge of wastewater to the sanitary sewer.

5. **Surface Water Discharges:** Wastewater discharged to the storm sewer enters a City of Palo Alto box culvert that discharges to Matadero Creek at its Alma Street crossing (Lat. 37° 25' 41", Long. 122° 08' 20"). Matadero Creek flows into San Francisco Bay.

6. **Annual Fees:** California regulations establish an annual NPDES fee schedule based on the threat to water quality and complexity of the discharge. The discharge covered under this permit is classified as Category 2-B:

   > Category 2 Threat to Water Quality – Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance; and
   >
   > Category B Complexity – Any discharger not included in the major discharger Category A using physical, chemical, or biological treatment (except for septic systems with subsurface disposal), or any Class II or Class III waste management units.

7. **Basin Plan:** The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (hereinafter called Basin Plan) on June, 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Board on July 20, 1995, and the Office of Administrative Law (OAL) on November 13, 1995. The OAL's action is published in Section 3912 of Title 23 of the California Code of Regulations. The Basin Plan defines beneficial uses and water quality objectives for water of the State, including surface waters and groundwaters.

8. **Beneficial Uses:** The Basin Plan identifies the following existing and potential beneficial uses of Matadero Creek:

a. Water contact and non-contact recreation
b. Wildlife habitat
c. Cold freshwater and warm freshwater habitat
d. Fish migration and spawning

The Basin Plan identifies the following existing and potential beneficial uses of groundwater underlying and adjacent to the facility:

a. Industrial process water supply
b. Industrial service water supply
c. Municipal and domestic water supply
d. Agricultural water supply

Upstream of this point of discharge Matadero Creek becomes the channeled Matadero Canal, which continues to the floodgates of San Francisco Bay. Because it is concrete-lined for approximately 5 kilometers beyond the discharge point, groundwater recharge from this creek is not anticipated to be significant.

9. **Basin Plan Prohibition:** The Basin Plan prohibits discharge of wastewater having particular characteristics of concern for beneficial uses (1) at any point at which wastewater does not receive a minimum initial dilution of at least 10:1, or into any non-tidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof; and (2) at any point in San Francisco Bay south of the Dumbarton Bridge. The Basin Plan allows for exceptions to this prohibition if a discharge is approved as part of a groundwater clean-up project in accordance with Resolution No. 88-160, or it has been demonstrated that neither reclamation nor discharge to a POTW is technically and economically feasible, and the discharger has provided a certification of the adequacy and reliability of treatment facilities and a plan that describes procedures for proper operation and maintenance of all treatment facilities.

The discharge qualifies for an exception to this prohibition because (1) it is part of a groundwater cleanup program; (2) water reuse is not economically feasible; and (3) the local POTW cannot adequately manage the large flow capacity from this facility over the long term.

10. **No Preemption:** This Order permits the discharge of groundwater and surface water to waters of the State subject to the prohibitions, effluent limitations, and provisions of this Order. It does not preempt or supersede the authority of municipalities, flood control agencies, or other local agencies to prohibit, restrict, or control discharges of waste to storm drain systems or other watercourses subject to their jurisdiction.

11. **Basis for Effluent Limits:** Effluent limitations in this Order are based on the existing permit, the Basin Plan, State plans and policies, U.S. EPA guidance, best available

treatment technology economically achievable, best management practices, and best professional judgment.

Effluent limits for metals are mass limits based on current mass loadings from a representative subset of groundwater cleanup discharges in this region. In the Board's best professional judgment, these limits will result in *de minimis* mass loadings to San Francisco Bay when compared to metals loadings from municipal point sources, industrial point sources, storm water discharges, and other non-point sources.

12. **CEQA:** This Order serves as a NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.

13. **Notice:** The Board has notified interested agencies and persons of its intent to issue waste discharge requirements for the pump station at Oregon Expressway and Alma Street in Palo Alto, Santa Clara County. Interested parties have been provided with an opportunity to submit written views and recommendations.

14. **Hearing:** The Board, in a public meeting, heard and considered all comments pertaining to the discharge described in this Order.

IT IS HEREBY ORDERED, pursuant to Division 7 of the California Water Code and regulations adopted therein and the provisions of the Clean Water Act and regulations and guidelines adopted therein, that the County of Santa Clara Roads & Airports Department shall comply with the following:

A. **Prohibitions**

1. The discharge of waste or hazardous materials in a manner that will adversely affect beneficial uses of waters of the State is prohibited.

2. The discharge shall be limited to the wastewater described in Finding 3 of this Order, and any added anti-scaling, anti-biofouling, or other treatment chemicals approved by the Executive Officer that do not adversely affect the environment and comply with the requirements of this Order.

3. Prior to operation of a VOC treatment system, OEU wastewater discharge to the storm sewer is prohibited except for the following discharges:

   a. Wastewater flow from the OEU pump station that exceeds the POTW-permitted discharge capacity (i.e., 450 gpm) to the sanitary sewer;

b. Discharges caused by temporary POTW prohibitions on discharge to the sanitary sewer;

c. Discharges associated with a wastewater treatment study approved by the Executive Officer; and

d. Periodic discharges for pump maintenance approved by the Executive Officer.

This prohibition expires on the compliance date specified below in Section B (Effluent Limitations). After the compliance date, the discharger may discharge to the storm sewer full-time provided all other conditions of this Order are met.

B. Effluent Limitations

The effluent limits specified in this section take effect on August 20, 2001. This date may be extended up to six months with the approval of the Executive Officer.

1. Wastewater discharges to surface water shall not contain constituents in excess of the following limits:

   a. Organic Constituents: These concentration limits apply to discharge flow less than 600 gpm, and discharge flow greater than 600 gpm caused by non-precipitation events.

Constituent	Instantaneous Maximum Limit (ug/l)	USEPA Analytical Method
Benzene	1.0	8260
Carbon tetrachloride	0.5	8260
Chloroform	5.0	8260
1,1-Dichloroethane	5.0	8260
1,2-Dichloroethane	0.5	8260
1,1-Dichloroethene	5.0	8260
1,2-Dichloroethene (total)	5.0	8260
Ethylbenzene	5.0	8260
Methylene chloride	5.0	8260
Tetrachloroethene	5.0	8260
Toluene	5.0	8260
1,1,1-Trichloroethane	5.0	8260
1,1,2-Trichloroethane	5.0	8260
Trichloroethene	5.0	8260
Vinyl chloride	0.5	8260
Xylene (total)	5.0	8260
Other purgeable VOCs	5.0	8260

b. Organic Constituents: These concentration limits apply to discharge flow greater than 600 gpm caused by precipitation events.

Constituent	Instantaneous Maximum Limit (ug/l)	USEPA Analytical Method
Benzene	10.0	8260
Carbon tetrachloride	5.0	8260
Chloroform	50.0	8260
1,1-Dichloroethane	50.0	8260
1,2-Dichloroethane	5.0	8260
1,1-Dichloroethene	50.0	8260
1,2-Dichloroethene (total)	50.0	8260
Ethylbenzene	50.0	8260
Methylene chloride	50.0	8260
Tetrachloroethene	50.0	8260
Toluene	50.0	8260
1,1,1-Trichloroethane	50.0	8260
1,1,2-Trichloroethane	50.0	8260
Trichloroethene	50.0	8260
Vinyl chloride	5.0	8260
Xylene (total)	50.0	8260
Other purgeable VOCs	50.0	8260

c. Inorganic Constituents – Mass Limits

Constituent	Mass Limit (grams/day)	USEPA Analytical Method
Arsenic	20	6010
Cadmium	8	6010
Chromium VI	40	6010
Copper	20	6010
Lead	20	6010
Mercury	1	7470
Nickel	80	6010
Selenium	90	6010
Silver	20	6010
Zinc	200	6010

Note: Equivalent analytical methods may be substituted for those cited in the above tables.

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. Toxicity: The survival of rainbow trout in 96-hour static renewal bioassays of the discharge shall be a three-sample moving median of 90% survival and a minimum value of not less than 70% survival.

C. **Receiving Water Limitations**

1. Narrative Limits: The discharge shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;
   b. Bottom deposits or aquatic growths;
   c. Alteration of temperature, turbidity, odor, or apparent color beyond present natural background levels;
   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
   e. Toxic or other deleterious substances to be present in concentrations or quantities that will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. Numerical Limits: The discharge shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. Dissolved oxygen: 5.0 mg/l minimum

      The median of any three consecutive monitoring events shall not be less than 80% saturation. If natural factors cause a lesser concentration than described above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.

   b. pH: Variation from natural ambient pH by more than 0.5 pH units.

   c. Temperature: An increase in the natural ambient temperature of more than 2.8 degrees Celsius.

3. Water Quality Standards: The discharge shall not cause or contribute to a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted therein. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such standards.

D. **Provisions**

1. Immediate Compliance: The discharger shall comply with all sections of this Order immediately except as noted in Section B (effluent limits).

2. Self-Monitoring Program: The discharger shall immediately comply with the Self-Monitoring Program as adopted by the Board (attached) and as may be amended by the Executive Officer.

3. Order Modification: This Order may be modified by the Board prior to the expiration date to include effluent limitations for constituents determined to be present in significant amounts in discharge.

4. Inorganic Limits Exceedance: If any inorganic effluent limit in Section B is exceeded, then the discharger shall, during the following quarter, take three additional samples and analyze for each exceeded constituent. Additional actions shall be taken according to the following results:

   Case 1 – If the results of the three additional samples **do not** exceed the effluent limit(s) the discharger shall report the results to the Executive Officer in the next Self-Monitoring Report, and shall return to the schedule of sampling and analysis in the Self-Monitoring Program.

   Case 2 – If the results of **any one of the three** additional samples exceed the effluent limit(s), the discharger shall perform the following:

   a) Calculate the median and maximum concentration values for the constituent(s) of concern, using the three recent samples **and** all samples collected and analyzed for the constituent over the life of the permit.

   b) Estimate the mass load discharged over the life of the permit for the constituent(s) of concern. Report the results in grams per day and in pounds per year, using the average flow rate over the life of the permit.

   c) Report the results to the Executive Officer in the next Self-Monitoring Report, and return to the schedule of sampling and analysis in the Self-Monitoring Program.

   Case 3 – If the results of **two or three** of the additional samples exceed the effluent limit(s), the discharger shall perform the following:

   a) Calculate median and maximum concentration values and mass load for the constituent(s) of concern, as described in Case 2 above.

b) Perform a cost analysis for treatment of the discharge for the constituent(s) of concern. The analysis should include, but need not be limited to, a discussion of various treatment technologies or pretreatment filtration options, the cost and technical feasibility of increased treatment to reduce the constituent(s) of concern, and the amount of reduction in terms of concentration and average annual mass load.

If the results of the cost analysis indicate that metals treatment of the discharge does not appear to be a feasible option, then:

c) Perform an evaluation of the potential adverse impacts to the beneficial uses of the receiving water. The evaluation should include, but need not be limited to, description of the beneficial uses specific to the receiving water, physical and chemical characteristics of the water body and sediment, and the physical, chemical, or biological effects from the constituent(s) on the beneficial uses, including effects related to total or dissolved and hardness for metals with hardness-dependent objectives.

If exceedances are only for metals with hardness-dependent objectives, then the discharger may conduct a hardness study prior to completing this task. The hardness study should assess receiving water hardness (as calcium carbonate) and compute a "no effect" concentration for affected metals, using (1) the minimum of a statistically significant number of hardness samples, and (2) hardness-dependent formula for US EPA freshwater criteria. If effluent metals concentrations fall below the computed "no effect" concentration, then the discharger need not complete the remainder of this task.

If the receiving water study finds that the discharge is having potential adverse impacts to beneficial uses of the receiving water, then:

d) The discharger shall evaluate control measures other than treatment to reduce the constituent(s) of concern in the discharge.

e) Within 180 days of the discharger receiving results of the additional consecutive sampling, the discharger shall report the results of tasks (a) through (d) above to the Executive Officer, including (1) the proposed method to eliminate or minimize future noncompliance, or (2) a rationale for why no change to the existing program should take place, and why a return to the schedule of sampling and analysis in the Self-Monitoring Program is appropriate.

The discharger may be required to perform additional evaluations or take additional actions to minimize noncompliance, as deemed necessary by the Executive Officer.

If a violation of the same effluent limit occurs less than 60 months after completion of the required tasks in Cases 1, 2, or 3, then the Executive Officer may waive the evaluation required above. This waiver will not apply if a different inorganic constituent exceeds the effluent limit. In that case, the discharger shall perform an evaluation for that constituent.

5. Permit Expiration: This Order expires on August 16, 2005. The discharger must file a report of waste discharge in accordance with 23 CCR, Subchapter 9, not later than 180 days before this expiration date as application for NPDES renewal.

6. EPA Concurrence: This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

7. Rescission of Prior Authorization: The requirements prescribed by this Order supersede the authorization, dated February 29, 2000, to discharge effluent under the requirements of Order 99-051, NPDES Permit No. CAG912003.

E. **Standard Provisions**

1. No Nuisance: The discharge of pollutants shall not create pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code.

2. Duty to Comply: If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the discharger must comply with the new standard or prohibition. The Board will revise this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.

   If more stringent applicable water quality standards are approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the discharger must comply with the new standard. The Board will revise this Order in accordance with such more stringent standards.

   The filing of a request by the discharger for modification or termination of permit coverage, or a notification of planned changes or anticipated noncompliance does not stay any permit conditions.

3. New Pollutants: The discharger must notify the Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin to use and discharge a pollutant not reported in the permit application, or (2) a discharge of toxic pollutants not regulated by this Order has occurred or will occur in concentrations that exceed the limits specified in 40 CFR 122.42(a).

4. Property Rights: This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor create a vested right for the discharger to continue the waste discharge, nor guarantee the discharger a capacity right in the receiving water.

5. Inspection and Entry: The Board or its authorized representatives shall be allowed:

   a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of the Order;

   b. Reasonable access to and duplication of any records that must be kept under the conditions of the Order;

   c. To inspect at reasonable times any facility, equipment, practices, or operations regulated or required under the Order; and

   d. To photograph, sample, and monitor at reasonable times for the purpose of assuring compliance with the Order or as otherwise authorized by the Clean Water Act any substances or parameters at any locations.

6. Duty to Provide Information: The discharger shall furnish, within a reasonable time, any information the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit. The discharger shall also furnish to the Board, upon request, copies of records required to be kept by its permits.

7. Continuation of Expired Permit: This permit continues in force and effect until a new permit is issued or the Board rescinds the permit.

8. Equipment Reliability: The discharger shall, at all times, properly operate and maintain all facilities and systems (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. The discharger shall keep in a state of readiness all systems necessary to achieve compliance with the conditions of this Order. All

systems, both those in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of the tests and made available to the Board for at least 5 years.

9. False Reporting: Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall be subject to enforcement procedures as identified below.

10. Transfers: Coverage by this permit is not transferable to any person except after notice to the Executive Officer. The Executive Officer may require modification of the discharge authorization letter to change the name of the permit holder and incorporate such other requirements as may be necessary under the Clean Water Act.

11. Planned Changes: The discharger shall file with the Executive Officer an amended permit application at least 60 days before making any material change in the character, location, or volume of discharge.

12. Enforcement: The provisions of this section shall not act as a limitation on the statutory or regulatory authority of the Board.

    a. Any violation of the permit constitutes violation of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and regulations adopted thereunder, and is the basis for enforcement action, revocation of permit coverage, denial of an application for continued permit coverage, or a combination thereof.

    b. The Board may impose administrative civil liability, may refer a discharger to the State Attorney General to seek civil monetary penalties, may seek injunctive relief or take other appropriate enforcement action as provided in the California Water Code or federal law for violation of this Order.

    c. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the Order.

    d. A discharger seeking to establish the occurrence of an upset has the burden of proof. A discharger who wishes to establish the affirmative defense of any upset in an action brought for noncompliance shall demonstrate through properly signed contemporaneous operating logs or other relevant evidence that: (1) an upset occurred and the permit holder can identify the cause of the upset, (2) the permitted facility was being properly operated at

the time of the upset, (3) the discharger submitted notice of the upset as required, and (4) the discharger complied with any remedial measures required.

13. Definitions

a. Toxic pollutant means any pollutant listed as toxic under Section 307(a) of the Clean Water Act or implementing regulations.

b. Upset means an exceptional incident in which there is unintentional temporary noncompliance with technology-based effluent limits in the Order because of factors beyond the reasonable control of the discharger. It does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 16, 2000.

Lawrence P. Kolb
Acting Executive Officer

Attachment: Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

COUNTY OF SANTA CLARA ROADS & AIRPORTS DEPARTMENT
PUMP STATION AT OREGON EXPRESSWAY AND ALMA STREET
PALO ALTO, SANTA CLARA COUNTY

NPDES NO. CA0038784
ORDER NO. 00-085

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the California Water Code and this Board's Resolution No. 73-16 and the U.S. Environmental Protection Agency's Discharge Monitoring Report (Form 3320-1).

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Board; (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharger; (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards; and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the 40 CFR 136 or other methods approved and specified by the Executive Officer of this Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DOHS) or a laboratory waived by the Executive Officer from obtaining a certification for these analyses by the DOHS. The director of the laboratory whose name appears on the certification or his/her laboratory supervisor who is directly responsible for analytical work performed shall supervise all analytical work including appropriate quality assurance/quality control procedures in his or her laboratory and shall sign all reports of such work submitted to the Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. The ***Compliance Date*** is defined as August 20, 2001, which is the date when the discharger will begin discharging to the storm sewer full-time. This date may be extended up to six months with the approval of the Executive Officer.

2. A ***grab sample*** is defined as an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with daily maximum limits and ***instantaneous maximum*** limits. Grab samples represent only the condition that exists at the time the wastewater is collected.

3. A ***flow sample*** is defined as the accurate measurement of the average daily flow volume using a properly calibrated and maintained flow measuring device.

4. ***Duly authorized representative*** is one whose:

   a. Authorization is made in writing by a principal executive officer or ranking elected official;

   b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general partner in a partnership, sole proprietor in a sole proprietorship, the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

5. ***Instantaneous maximum*** is defined as the highest measurement obtained for the calendar day.

6. ***Median*** of an ordered set of values is that value below and above which there is an equal number of values, or which is the arithmetic mean of the two middle levels, if there is no one middle value.

D. SPECIFICATIONS FOR SAMPLING AND ANALYSIS

The discharger is required to perform sampling and analyses according to the schedules in Tables 1 and 2, in accordance with the following conditions:

1. **Influent and Effluent**

a. Samples of effluent and receiving waters shall be collected on days coincident with influent sampling unless otherwise stipulated. The Board or Executive Officer may approve an alternative sampling plan if it is demonstrated to the Board's satisfaction that expected operating conditions for the facility warrant a deviation from the standard sampling plan.

b. Grab samples of effluent shall be collected during periods of typical flows and shall coincide with influent sample days.

c. Fish bioassay samples shall be collected on days coincident with effluent sampling. The fish species to be used for compliance in the 96-hour percent survival static or static renewal fish toxicity bioassay shall be rainbow trout.

d. If analytical results indicate any instantaneous maximum limit is exceeded for any *inorganic* constituent, actions shall be taken and reported as stipulated in Provision D.4 of the permit.

e. If the final or intermediate results of any single bioassay test indicate a threatened violation (i.e., the percentage of surviving test organisms is less than the required survival percentage), a new test will begin and the discharger shall investigate the cause of the mortalities and report the finding in the next self-monitoring report.

2. **Receiving Waters**

a. Receiving water sampling shall be conducted on days coincident with effluent sampling.

b. Samples shall be collected within one foot below the surface of the receiving water body, unless water depth is less than one foot, in which case a mid-depth sample shall be taken.

E. DESCRIPTION OF SAMPLING STATIONS

The following stations shall be sampled in accordance with the schedule described in the attached Table 1 until the Compliance Date:

Stations	Description
1. Effluent	
E-1	At a point within the sump at the OEU pump station.
2. Receiving Waters	
RU-1	At a point in Matadero Creek at least 50 feet upstream of the Alma Street box culvert discharge.
RD-1	At a point in Matadero Creek at least 100 feet downstream of the Alma Street box culvert discharge.

The following stations shall be sampled in accordance with the schedule described in the attached Table 2 beginning on the Compliance Date:

Stations	Description
1. Influent	
I-1	At a point in the sump at the OEU pump station.
I-2	At a point in the Alma Street box culvert directly upstream of where the OEU pump station discharges to this culvert.
I-3	At a point in the drainage channel located about 125 feet downstream of where the OEU pump station discharges to the Alma Street box culvert. Samples shall be collected only when flowing water is present.
I-4	At a point in the drainage channel located about 480 feet downstream of where the OEU pump station discharges to the Alma Street box culvert. Samples shall be collected only when flowing water is present.
2. Effluent	
E-1	At a point in the Alma Street box culvert where it discharges to Matadero Creek. If this sampling station is inaccessible because of high stream flow, then a point directly downstream of Station I-4 shall be sampled as an equivalent station to E-1.

3. **Receiving Waters**

RU-1 At a point in Matadero Creek at least 50 feet upstream of the Alma Street box culvert discharge.

RD-1 At a point in Matadero Creek at least 100 feet downstream of the Alma Street box culvert discharge.

F. STANDARD OBSERVATIONS

1. **Receiving Water**

a. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

b. Discoloration and turbidity: description of color, source, and size of affected area.

c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.

2. **OEU Pump Station**

a. Odor: presence or absence, characterization, source, and distance of travel.

b. Weather conditions: wind direction and estimated velocity; note any precipitation.

G. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. **Self-Monitoring Reports**

Written reports shall be submitted quarterly not later than one month following the last day of the quarterly period (i.e., February 1, May 1, August 1, and November 1). The reports shall include the following:

a. **Letter of Transmittal:** A letter transmitting self-monitoring reports shall accompany each report. Such a letter shall include the following:

1) Identification of all violations of waste discharge requirements found during the reporting period;

2) Details of the magnitude, frequency, and dates of all violations;

3) The cause of the violations, and;

4) Discussion of the corrective actions taken or planned and the time schedule for completion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory.

b. **Signature and Certification:** Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer or ranking elected official of the discharger, or by a ***duly authorized representative*** of that person.

The letter shall contain the following certification:

> "I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

c. **Compliance Evaluation Summary:** The report format shall be a format that is acceptable to the Executive Officer.

d. **Map or Aerial Photograph:** A map or aerial photograph shall accompany the report showing sampling and observation station locations.

e. **Results of Analyses and Observations:** The report format shall be acceptable to the Executive Officer and comply with the following:

1) If the discharger monitors any pollutant more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Self-Monitoring Report.

2) The report shall also include a table identifying by method number the analytical procedures used for analyses. Any special methods shall be identified and should have prior approval of the Board's Executive Officer.

3) Lab results shall be summarized in tabular form; certificates of analysis do not need to be included in the report.

4) Daily precipitation results (in inches) in tabular form.

5) Weekly flow meter readings in tabular form.

e. **List of Approved Analyses:**

1) List of DOHS-approved analyses used by the discharger.

2) List of analyses performed for the discharger by an approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

3) List of "waived" analyses, as approved by the Executive Officer.

f. **Flow Data:** The tabulation pursuant to Section H.2.

g. **Operation Status:** Summary of sanitary sewer pump and storm sewer pump status during the reporting period (e.g., in operation/any downtime) and reason(s) for any pump shut downs.

2. **Annual Reporting**

By February 1 of each year, the discharger shall submit an annual report to the Board covering the previous calendar year. The annual report shall contain all data required for the fourth quarter period in addition to summary data required for annual reporting. This report may be submitted in lieu of the fourth quarter monitoring report.

The report shall contain tabular summary of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned that may be needed to bring the discharger into full compliance with the waste discharge requirements.

3. **Spill Reports**

If as a result of activities associated with operation of the OEU pump station, any hazardous substance is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged in or on any waters of the state, the discharger shall report such a discharge to this Board at (510) 622-2300 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of

Emergency Services at (800) 852-7550 during non-office hours. A written report shall be filed with the Board within five (5) working days and shall contain information relative to:

a. Nature of waste or pollutant;

b. Quantity removed;

c. Duration of incident;

d. Cause of spill;

e. Spill Prevention, Control, and Countermeasure Plan implementation (if applicable);

f. Estimated size of affected area;

g. Nature and effects (i.e., fish kill, discoloration of receiving water, etc.);

h. Corrective measures that have been taken or planned, and a schedule of these activities;

i. Persons and agencies notified.

4. **Reports of Permit Violation**

In the event the discharger violates or threatens to violate the conditions of the waste discharge requirements and prohibitions due to:

a. Maintenance work, power failures, or equipment failure;

b. Accidents caused by human error or negligence;

c. The self-monitoring program results exceed effluent limitations;

d. Any activity that would result in a frequent or routine discharge of any toxic pollutant not limited by this Order, or;

e. Other causes such as acts of nature;

The discharger shall notify the Board within one day as soon as the discharger or its agents have knowledge of the incident and confirm this notification in writing within 5 working days of the initial notification. The written report shall include time, date, duration and estimated volume of waste discharged, method used in estimating volume and person notified of the incident. The report shall include

pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

5. **Report Submittal to Santa Clara Valley Water District**

The discharger shall provide copies of investigation, self-monitoring, and violation reports to the Santa Clara Valley Water District, located at 5750 Almaden Expressway, San Jose, California, 95118.

6. **Construction Projects**

The discharger shall file a written technical report to be received at least 30 days prior to advertising for bid (or 60 days prior to construction) on any discharger construction project that would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, cost, and scheduling of all action necessary to preclude such discharge. In no case will any discharge of wastes in violation of permit and order be permitted unless notification is made to the Executive Officer and approval obtained from the Board.

H. RECORDS TO BE MAINTAINED

1. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained by the discharger or its agent for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board or Regional Administrator of the U.S. Environmental Protection Agency, Region IX. These records shall be made available to Board representatives upon request. Laboratory records shall show the following for each sample:

   a. Identity of sampling and observation stations by number;

   b. Date and time of sampling and/or observations;

   c. Method of sampling (see Section C – Definition of Terms);

   d. Type of fish bioassay test, if applicable;

   e. Date and time that analyses are started and completed, and name of personnel performing the analyses;

   f. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to a specific section of ***Standard Methods*** is satisfactory;

g. Calculations of results, if applicable;

h. Results of analyses and/or observations.

2. Weekly discharge flow volume shall be recorded and totalized as quarterly and annual flow.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Board Order No. 00-085.

2. Was adopted by the Board on August 16, 2000.

3. May be revised by the Executive Officer pursuant to U.S. EPA regulations (40 CFR 122.36); other revisions may be ordered by the Board.

Lawrence P. Kolb
Acting Executive Officer

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS
UNTIL THE COMPLIANCE DATE

	Sampling Station	
Parameter	**E-1**	**RD-1/RU-1**
Sample type	Grab	Grab
Flow	Weekly	
All applicable standard observations[1]	Monthly[2]	Quarterly[2]
Bioassay, 96-hour % survival	Quarterly[2]	
Dissolved oxygen (mg/l and % saturation)		Quarterly[2]
Hardness (mg/l $CaCO_3$)	Annually	Annually
Ph	Monthly[2]	Quarterly[2]
Temperature (degrees Celsius)	Monthly[2]	Quarterly[2]
Turbidity (NTUs)	Quarterly[2]	
Arsenic[3] (ug/l)	Annually	
Cadmium[3] (ug/l)	Annually	
Chromium[3,4] (ug/l)	Annually	
Copper[3] (ug/l)	Annually	
Lead[3] (ug/l)	Annually	
Mercury[3] (ug/l)	Annually	
Nickel[3] (ug/l)	Annually	
Selenium[3] (ug/l)	Annually	
Silver[3] (ug/l)	Annually	
Zinc[3] (ug/l)	Annually	
VOCs – EPA Method 8260 or equivalent[5]	E/D	Quarterly[2]

Types of Stations
E = effluent; RU and RD = receiving water

Sampling Frequency
The annual sampling event shall be conducted at the first reasonable opportunity following issuance of this Self-Monitoring Program.

E/D = Every discharge event preceded by at least three days of dry weather.

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS
UNTIL THE COMPLIANCE DATE
(Continued)

Footnotes

1 See Section F for specific observations.

2 The Board recognizes that some sampling events may not occur because of lack of discharges during a given month or quarter. The discharger is responsible for documenting the absence of discharges and subsequent absence of field/analytical data in monitoring reports.

3 Metals samples shall be analyzed for total (unfiltered) constituents and the maximum method detection limits shall be the following: 2 ug/l for cadmium; 0.2 ug/l for mercury; 10 ug/l for zinc; and 5 ug/l for all other metals.

4 Analysis for total chromium may be substituted for Chromium VI analysis.

5 The discharger shall report results for methyl tert butyl ether along with results for other reportable VOCs.

TABLE 2
SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS
BEGINNING ON THE COMPLIANCE DATE

	Sampling Station						
Parameter	**I-1**	**I-2**	**I-3**	**I-4**	**E-1**	**RU-1**	**RD-1**
Sample type	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Flow	W						
Standard observations[1]	W/M					Q/A	Q/A
Bioassay, 96-hour % survival	A						
Dissolved oxygen (mg/l & % saturation)						Q/A	Q/A
Hardness (mg/l $CaCO_3$)	A					A	A
pH	M					Q/A	Q/A
Temperature (degrees Celsius)	M					Q/A	Q/A
Turbidity (NTUs)	A						
Arsenic[2] (ug/l)	A						
Cadmium[2] (ug/l)	A						
Chromium[2,3] (ug/l)	A						
Copper[2] (ug/l)	A						
Lead[2] (ug/l)	A						
Mercury[2] (ug/l)	A						
Nickel[2] (ug/l)	A						
Selenium[2] (ug/l)	A						
Silver[2] (ug/l)	A						
Zinc[2] (ug/l)	A						
VOCs – EPA Method 8260 or equivalent[4]	W/M	W/M	W/M	W/M	W/M	V	V

Types of Stations: I = influent; E = effluent; RU and RD = receiving water

Sampling Frequency:
Annual sampling shall be conducted within a month of the issuance of this Self-Monitoring Program.

A = Annually; M = Monthly; Q = Quarterly; W = Weekly

Q/A = Quarterly for the first year, and annually thereafter.

W/M = Weekly for the first month, and monthly thereafter.

V = Sampling shall be performed within 24 hours after an effluent exceedance is confirmed at E-1.

TABLE 2
SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS
BEGINNING ON THE COMPLIANCE DATE
(Continued)

Footnotes

1 See Section F for specific observations.

2 Metals samples shall be analyzed for total (unfiltered) constituents and the maximum method detection limits shall be the following: 2 ug/l for cadmium; 0.2 ug/l for mercury; 10 ug/l for zinc; and 5 ug/l for all other metals.

3 Analysis for total chromium may be substituted for Chromium VI analysis. If total chromium results are 20 ug/l or greater, then the discharger shall resample Station I-1 and analyze for Chromium VI.

4 The discharger shall report results for methyl tert butyl ether along with results for other reportable VOCs.

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

Date: AUG 1 8 2000
File No. 2189.8265 (BLS)

Certified Mail No. P 391 503 988

Ms. Nicole Jakaby
Santa Clara County Roads and Airports Department
1505 Schallenberger Road
San Jose, CA 95131-2434

SUBJECT: Final Order for NPDES Permit No. CA0038784 for Discharge of Groundwater from the Pump Station at Oregon Expressway and Alma Street, Palo Alto, Santa Clara County

Dear Ms. Jakaby:

On 16 August 2000, the Regional Water Quality Control Board approved the issuance of Order 00-085, the NPDES permit for the subject site. A copy of this order is attached for your records.

If you have any questions, please contact Brett Stevens of my staff at (510) 622-2349 or via e-mail at bls@rb2.swrcb.ca.gov.

Sincerely,

Lawrence P. Kolb
Acting Executive Officer

Attachment

cc w/attachment: Mailing List

Mailing List

Ms. Seena Hoose
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

Ms. Paula Kakimoto
Stanford Management Company
2770 Sand Hill Road
Menlo Park, CA 94025

Mr. Gary Kern
Varian Medical Systems
3120 Hansen Way M/S D-095
Palo Alto, CA 94304

Ms. Elizabeth McDonald
Hewlett-Packard Company
1501 Page Mill Road, MS 5UE
Palo Alto, CA 94304

Mr. Terry Oda
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105